

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 March 2005 (17.03.2005)

PCT

(10) International Publication Number
WO 2005/024987 A2

(51) International Patent Classification⁷: **H01M 8/06**

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(21) International Application Number:
PCT/JP2004/012033

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 16 August 2004 (16.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-314283 5 September 2003 (05.09.2003) JP

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(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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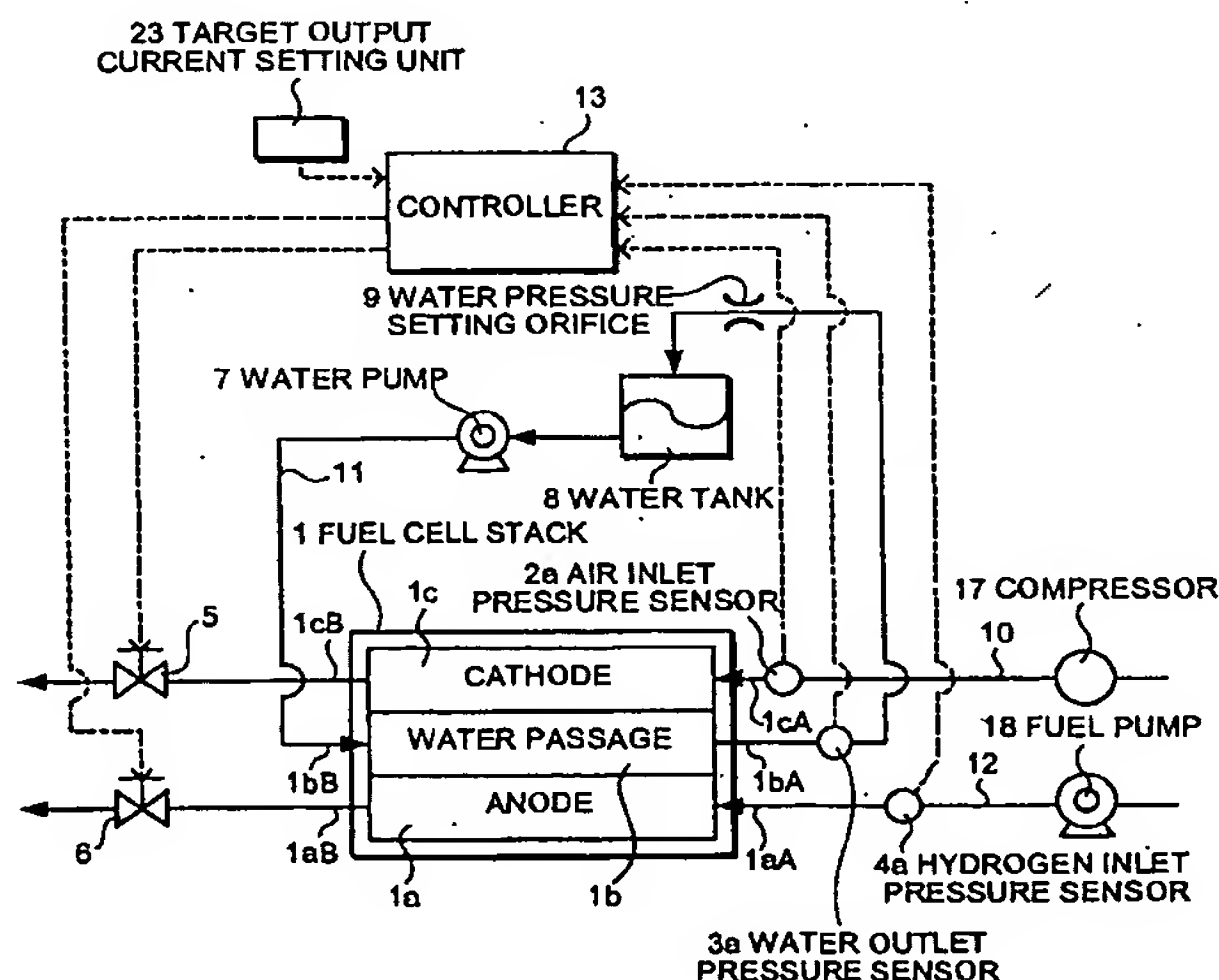
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Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: FUEL CELL SYSTEM



(57) Abstract: A fuel cell stack (1) comprises a reactive gas passage (115, 1c, 116, 1a) and a water passage (117, 1b) substantially parallel thereto, and a reactive gas is humidified by water permeating from the water passage (117, 1b) through a porous member (112a, 112c). The pressure reduction amounts in the reactive gas passage (115, 1c, 116, 1a) and the water passage (117, 1b) are respectively calculated based on the power generation load of the stack (1). From the pressure reduction amounts in the water passage (117, 1b) and the reactive gas passage (115, 1c, 116, 1a), the pressure of the reactive gas supplied to the reactive gas passage (115, 1c, 116, 1a) is controlled such that the difference in pressure between the reactive gas passage (115, 1c, 116, 1a) and the water passage (117, 1b) is within a predetermined range, whereby the reactive gas is humidified in a desirable state.

WO 2005/024987 A2